DOCUMENT RESUME

ED 434 812 SE 062 825

AUTHOR	Hren, Benedict J.
TITLE	Conservation in a World of Six Billion: A Grassroots Action Guide.
INSTITUTION	Izaak Walton League of America, Gaithersburg, MD.
PUB DATE	1999-09-00
NOTE	25p.; Accompanying poster not included with ERIC copy.
AVAILABLE FROM	Izaak Walton League of America, 707 Conservation Lane, Gaithersburg, MD 20878-2983. Tel: 301-548-0150.
PUB TYPE	Guides - Classroom - Teacher (052)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*Conservation Education; *Environmental Education; Higher Education; *Population Growth; Science Education; *Sustainable Development

ABSTRACT

This grassroots action guide features a conservation initiative working to bring the impacts of human population growth, economic development, and natural resource consumption into balance with the limits of nature for the benefit of current and future generations. Contents include information sheets entitled "Six Billion People and Growing," "The Myth of Shrinking Population," "People and the Environment," and "Faith and Sustainability." Contains a sustainability quiz, a sample opinion editorial, and a 10-item list of resources. (CCM)

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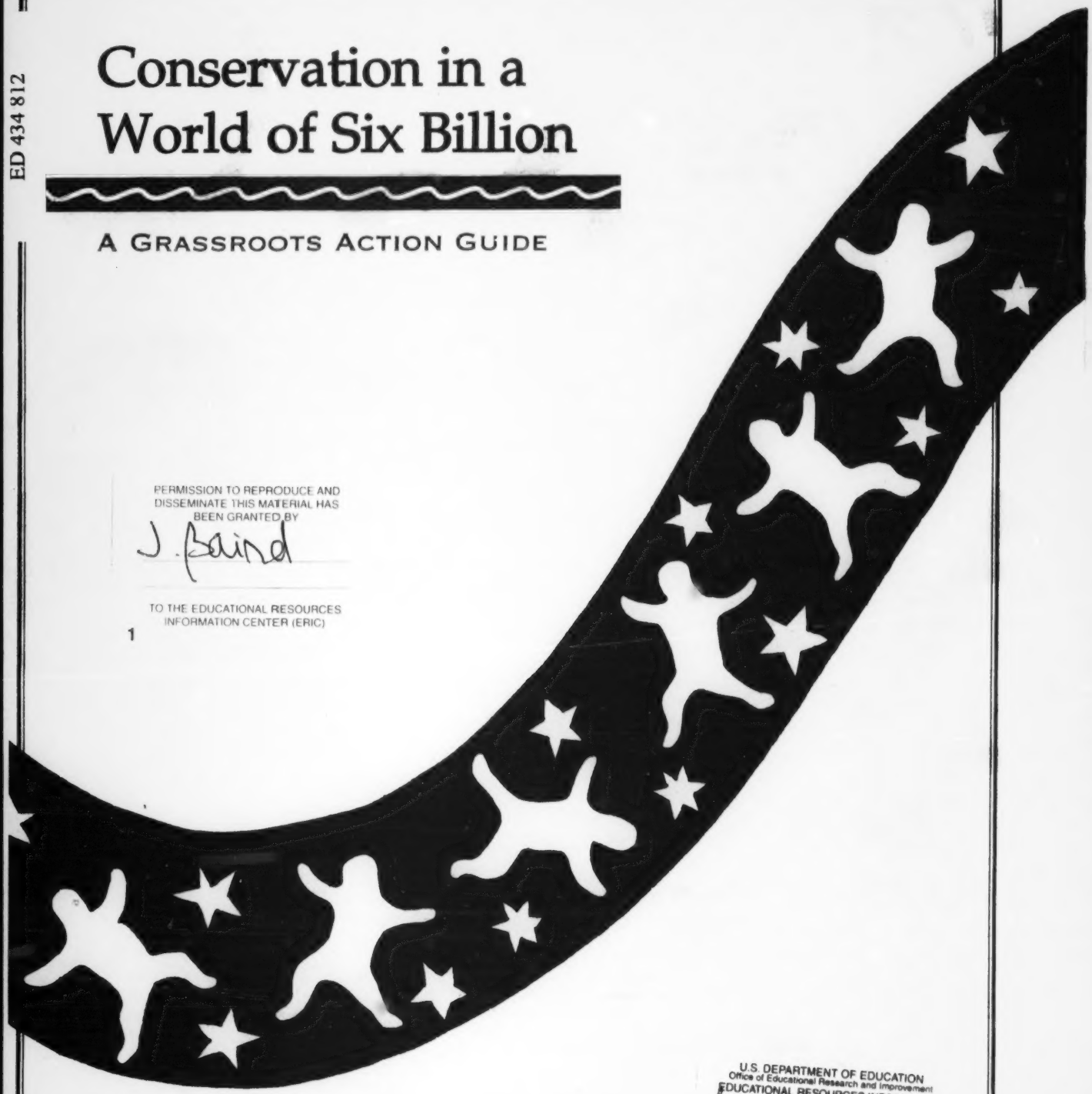
Conservation in a World of Six Billion

A Grassroots Action Guide



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Izaak Walton League of America
Sustainability Education Project
September 1999

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Day of Six Billion

A Grassroots Action Guide

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THE SUSTAINABILITY EDUCATION PROJECT IS a conservation initiative working to bring the impacts of human population growth, economic development, and natural resource consumption into balance with the limits of nature for the benefit of current and future generations.

FUNDING is provided by the Hewlett Foundation and the Goldman Foundation. The opinions expressed are those of the author.

FOR MORE INFORMATION about the Sustainability Education Project or additional copies of this publication, write to the Izaak Walton League of America, 707 Conservation Lane, Gaithersburg, Md., 20878-2983; phone (301) 548-0150; fax to (301) 548-0149; send e-mail to sustain@iwla.org; or visit our World Wide Web site at www.iwla.org.

Printed on recycled paper with soy ink.

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Before You Begin

DEAR FELLOW CONSERVATIONIST,

The Izaak Walton League of America has a 77-year record of grassroots action and conservation leadership. As the League looks forward to the conservation challenges of the next millennium, none loom larger than those associated with balancing natural resource conservation with human needs and numbers.

Today, conservation-minded neighbors in the United States and around the world are coming together. They are creating ways to promote economic security, address critical social issues and conserve natural resources. Through community sustainability initiatives, conservationists are strengthening local economies, restoring neighborhood ecosystems and revitalizing civic participation.

No ecological system on Earth can support limitless growth. Each system is capable of supporting a limited population, based on the availability of and demand for the vital resource in shortest supply. Today, natural resources are traded internationally and technologies are employed seemingly to defy carrying capacity's ecological limits. Although it broadly is recognized that all human communities are connected through regional and global economies and ecosystems, the fact that natural resources and habitats must be shared with other plants and animals often is overlooked. Our survival is linked inextricably to the essential ecological services — clean air, fresh water and stable climates — provided by healthy ecosystems.

On Oct. 12, 1999, the total number of people on Earth will reach 6 billion. The 6 billionth child may be born in your home town, or in a community half a world away. The real story behind the birth of this child is not the the number of fellow humans he or she will be joining, but the environmental, social and economic concerns he or she — along with everyone else — will face.

The Izaak Walton League of America has never shirked from sensitive issues. The organization's 1968 policy stated that "overcrowding inevitably causes unrest, deterioration of living conditions and the dignity, worth and freedom of the individual, promoting pollution of the environment and destruction of natural ecology, and eventually elimination of opportunities for wilderness experiences, outdoor recreation and essential contact with nature." Community development, natural resource conservation, and social justice are at the heart of the League's Sustainability Education Project.

This "Day of Six Billion" grassroots action guide is the Sustainability

Education Project's latest effort to bring the best traditions of the League — reasoned debate, good science, and uncompromising dedication to natural resource conservation — to bear on these complex issues. It contains tools for discussing, investigating and taking action in your community.

It opens with the League's Conservation Policies about carrying capacity. Four information sheets build on the League's 1995 white paper, "Population and Consumption: A Conservationist's Response." Suggested conservation action steps are included at the end of each section. The "Sustainability Quiz" provides instructions for a community- or chapter-based discussion about population and sustainability, and the importance of both for conservation.

The sample opinion editorial offers a guide for sharing your concerns about sustainability and population issues with your community. It is designed to help you bring awareness to the upcoming, Oct. 12, 1999, "Day of Six Billion." The day will be an internationally observed milestone in human history — one with important implications for conservation.

The "Sustainability Begins at Home" poster can be displayed to increase awareness of the League's Sustainability Education Project and its available resources.

In a world of 6 billion people, sustainability begins at home, but it doesn't end there. We are aware that many communities, organizations and religious groups are engaged in discussions about sustainability and the environment. This action kit offers you an opportunity to take a leadership role.

On behalf of the League's Carrying Capacity Standing Resource Committee, We urge you to think about these issues and discuss them in your chapter and community. Take the actions you feel will best advance the League's conservation mission, and keep us informed about your experiences. When the generation of 6 billion comes of age, let them credit our generation for the rich inheritance — a healthy environment, a secure economy a just society, and the quality outdoor recreational experiences — we are working tirelessly to pass along.

Sincerely,

Dale Bumpers

Past IWLA National President and
Carrying Capacity Standing Resource Committee Chairman

Jim Baird

Director, Sustainability Education Project

Izaak Walton League of America Conservation Policies

The "Conservation Policies" summarize the official positions developed by the Izaak Walton League of America. These positions formally were adopted as resolutions by League members at annual conventions. Although the policies are divided into sections, no section(s) should be considered independent from the whole.

Chapter 1, from the June 1997 revised "Conservation Policies," is reprinted below. It is followed by resolutions about carrying capacity subsequently adopted in 1997 and 1998. Together, they articulate the League's official policy positions about sustainability, population and resource consumption.

Chapter 1 - The Fundamental Issue: Carrying Capacity

Since its inception, the Izaak Walton League of America has recognized that humans are an integral part of the natural world, subject to the same natural laws, requirements and controls as other animal species. Although they often address limited issues of the moment, League policies historically reflect this broader understanding. In 1965, the League began to consider human ecology directly, and during the ensuing years the IWLA has spoken out about the ultimate human carrying capacity of the nation and the Earth in the policies summarized below:

Sustainability

Sustainability is defined as a system that meets the basic needs of all people without compromising the ability of future generations to meet their own life-sustaining needs.

Pressures of unplanned, unconstrained growth contribute substantially to the social and environmental problems besetting America today. Unrestricted growth threatens our quality of life, our natural surroundings and our social and economic aspirations. Long-term growth choices too often are made by default. As our society moves from an era of apparent resource abundance to an age of resource shortages, it must come to terms with the futility of attempting to sustain endless growth in a world of finite resources. Accordingly, the League urges all levels of government to address major growth issues and to participate in development of a U.S. national growth policy that would:

Promote a productive equilibrium between people and our environment by bringing population and consumption into balance with the resource base.

Recognize that quantity and quality are not always mutually attainable.

Describe growth alternatives in terms of their social, economic, and environmental costs and benefits — with attention to topics such as energy, food, land use, transportation, and urban sprawl..

Provide all segments of the population with opportunities to achieve lives of quality and dignity.

Ensure that long-range growth implications of program and budgetary choices are considered centrally during public decision-making.

Ensure that the long-term productivity and carrying capacity of America's resources are not sacrificed to short-term uses.

Urge planners at all levels of local, state and federal government to develop long-range strategies that preserve the quality and diversity of outdoor recreation experiences essential to the human spirit.

Population

The League urges governments and private agencies to conduct scientific research and to encourage policies, attitudes, social standards, and programs that will — through voluntary actions consistent with human rights and individual conscience — bring about the stabilization of human population. Government and private efforts should include but not be limited to:

Development of a national policy on population and natural resources.
Incorporation of sustainable development principles in foreign and domestic policies.
Development of goals for stabilizing populations that incorporate the principles of economic development and environmental conservation.
Dissemination of birth control information to all segments of society.
Emphasis on the desirability of limiting family size to two or fewer natural children.
Education about sex and population problems in the nation's education institutions.
Provision of population education for people of all ages.
Support of national and international efforts to stabilize population through funding for family planning and promoting equality between men and women.

The League supports the right of the individual to choose freely methods of fertility control consistent with the dictates of individual conscience and accepted medical practice. The League neither advocates nor opposes abortion.

Resource Consumption

The United States increasingly faces shortages in many renewable and nonrenewable resources, including farmlands, forest resources, fossil fuels, important metals and minerals, even water. Extraction and consumption of these resources cannot be sustained at present rates without unacceptable impairment of environmental quality overall and reduced productivity of lands and waters traditionally used for agricultural and wildlife purposes.

Therefore, the League urges government to develop resource use policies that:

Recognize that each generation has the right to only a small portion of limited resources and the responsibility to share those resources with coming generations.
Encourage resource recovery, recycling and reuse.
Identify priority uses for scarce resources.
Increase the efficiency of resource extraction and use.
Encourage technological developments that reduce the environmental impacts of resource extraction and processing.
Integrate demographic data into resource decision-making.
Direct foreign aid to sustainable projects.
Promote practices that reduce consumption and waste.
Support stewardship among nations in resource use.

Controlling pollution also will require fundamental changes in the ways our government and our economy view and account for environmental insults. We must recognize that environmental costs are real costs and that they now are being paid by the public in ill health, shortened lives, lost recreational opportunities and publicly funded cleanup efforts. In the future, the full environmental costs involved in producing, consuming and cleaning up after any product or service should be paid by the consumers of the product. Only then will market-based decisions by business and consumers tend to clean up our environment. To reach that goal, the Izaak Walton League of America has called for setting discharge limitations at levels that

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will meet society's environmental goals, so pollution is prevented or cleaned up, the environment is protected from further damage, and the costs of cleanup are built into the price structure so market choices fully reflect environmental costs.

JUNE 1997

Conservation policy resolutions adopted by League delegates at the 1997 and 1998 national conventions call for additional measures.

Economic Reform for Sustainability

The Izaak Walton League of America assembled in convention at Peoria, Ill., July 11, 1997, urges all levels of government to promote economic reforms that would:

Reflect the true and full costs of forms of natural resource extraction, transportation, processing, consumption or waste that harm society or disrupt environmental quality without placing a disproportionate burden on lower-income individuals and families.
Eliminate government subsidies for economic activities that distort economic efficiency or damage the environment and enhance subsidies for economic activities that promote conservation.
Develop and implement methodologies and data to measure economic indicators that reflect the complex interactions among the economy, society, environment and the natural resource base, including natural resource depletion and environmental degradation.
Provide formal, informal and non-formal education for people of all ages about the stewardship of personal resources, emphasizing the importance of savings and investment in economic activities that support sustainability.
Encourage broad participation in sustainability practices.

Education for Sustainability

The Izaak Walton League of America assembled in convention at Peoria, Ill., July 11, 1997, urges all citizens, all institutions of learning and all agencies and levels of government to promote education for sustainability that addresses the following initiatives:

Lifelong Learning. The potential for learning about sustainability throughout one's life exists both within formal and nonformal educational settings.
Interdisciplinary approaches. Education for sustainability provides a unique theme to integrate content and issues across disciplines and curricula.
Partnership. Partnerships forged between educational institutions and the broader community are key to advancing education for sustainability.
Multicultural perspectives. Achieving sustainability is dependent upon an understanding of diverse cultural perspectives and approaches to problem solving.

Implementing Sustainability

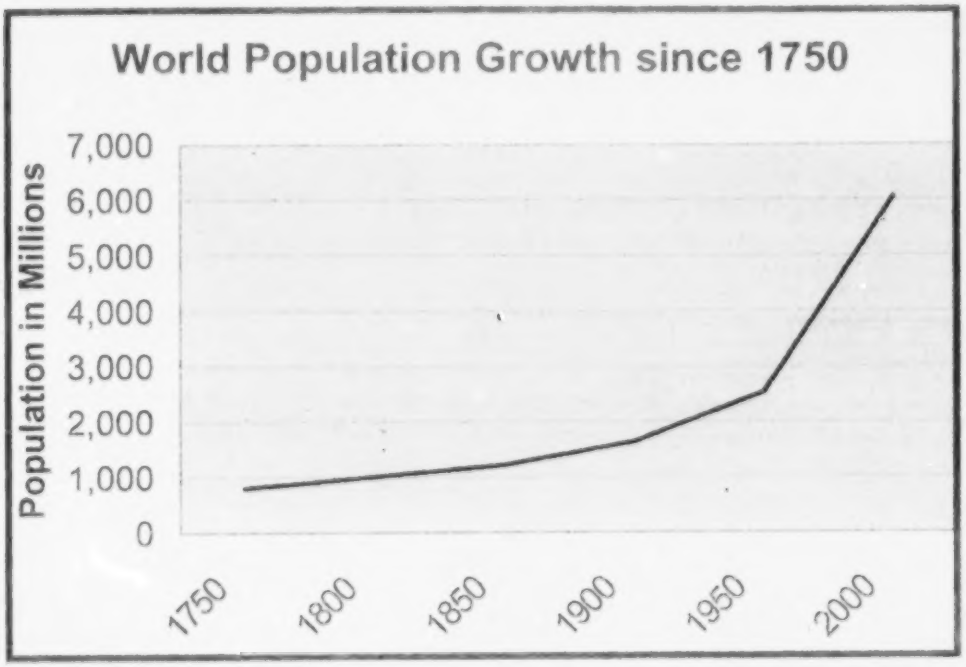
The Izaak Walton League of America assembled in convention at Pierre, S.D., July 17, 1998, encourages local units of government, working in partnership with organizations, institutions, businesses and citizens, to adopt and implement community-based planning principles that address community sustainability.

The League also encourages individual chapters to work with local governments in sharing these principles with the entire community early in the plan development process.

Information Sheet:

Six Billion People and Growing

Population growth's causes and effects are far more complex than the statistical evidence offered here. For example, although the revised 1998 world population projections reflect exhaustive demographic data about fertility, mortality, migration, and social and political trends,(3) they remain estimates. The influence of disease outbreaks, rising affluence, environmental limits and social factors that may influence desired family size are largely unknown.



Source: Prior to 1950, 1998 estimate, 1950-2050 UN World Population Prospects: The 1998 Assessment

If you were born before 1950, more people have been born during your lifetime than during any other time in the span of human history. The world population in 1950 was 2.5 billion. By October 1999, there will be more than 6 billion people on Earth.

More People

According to recent median population projections, 2.8 billion more people will be added during the next 50 years. Most will be in less developed countries — places already straining or failing to meet the basic needs of their current populations.(3) In many less developed countries, the good news is that basic health services — infant and maternal health care, vaccinations and family planning services — are becoming available to more people. Educational and economic opportunities for women also are rising. As a result, families in many countries are achieving better lives, and smaller family sizes are desired.

Yet just as real progress is being measured, promised foreign aid assistance that has catalyzed many recent successes is being reduced and in some cases withdrawn. In the fall of 1998, the U.S. congressional leadership voted to terminate funding for the United Nations Population Fund — a critical source of family planning funding.

But population growth is not uniquely an issue for less developed countries. The

United States remains one of the fastest growing, more developed countries in the world.

The U.S. population in November 1998 was 274 million, third highest in the world and about 15 million higher than in 1994. The U.S. population will grow to a projected 349 million people in 2050.(3) The increase of 75 million people is the equivalent of adding more than twice the 1998 population of Canada.

The U.S. population naturally will grow by about 1.6 million people and legal immigrants will add another 820,000 in 1999, according to the Census Bureau.(3) Counting both legal immigrants and natural increase, the total U.S. growth rate is 0.9 percent — faster than all more developed nations except Canada and Australia.(4)

The U.S. fertility rate (average number of births per woman) is 1.96, highest of all industrialized nations.(2)

U.S. life expectancy is now 73.4 years for men, lower than in 22 other nations. U.S. women can expect to live 80.1 years. U.S. infant mortality is 7 deaths per 1,000 live births, well below the world average of 57, but higher than in 14 other industrialized countries. (2)

Rising Affluent Lifestyles

Despite projected overall population declines among industrial nations, their energy demand is expected to double during the next 50 years. If the United States population and per capita energy use projections are realized, energy consumption will grow by the amount currently used by all of Africa and Latin America. The percentage of this energy demand increase that will be provided by renewable sources is unknown.(1)

Protected natural areas are threatened around the world. Expanding human populations and natural resource use preclude expansion of protected areas and challenge the sustainability of existing reserves. The population of South Florida has grown more than sevenfold since 1950, and millions more people are expected to move there in the coming years. Sprawling development, aquifer depletion, inappropriate surface water management, and expanding agriculture continue to degrade and threaten Everglades National Park.(1)

Water used in industry yields 70 times more profit than the same amount of water used to grow wheat. Countries facing water shortages utilize the resource to maximize gain and must import their grain. By 2025, water scarcity will affect more than a billion people whose countries will depend on grain producing regions, like the American Great Plains, to supply their food.(1)

In 1984, the per capita global grain harvest reached an all-time high of 342 kilograms per person. By 1998, per capita global grain harvest had dropped to 312 kilograms per person. People in the United States consume an average of about 900 kilograms of grain per person per year, much in the converted form of dairy products, eggs and meat. People in India consume an average of 200 kilograms of grain per person per year, mostly in the form of rice.(1)

Take Action

The Izaak Walton League of America's Conservation Policies recommend the following actions to address issues of growing populations and affluence:

Sources: (1)Brown, Lester, Gardner, Gary, Halwell, Brian, "Beyond Malthus: Nineteen Dimensions of the Population Challenge," W.W. Norton and Company, New York, 1999. (2)Population Reference Bureau, "1998 World Population Data Sheet," Population Reference Bureau, Washington, D.C., June 1998. (3)United Nations, "World Population Prospects: The 1998 Revision," United Nations, New York, December 1998. (4)UNFPA, "The State of World Population 1998," United Nations, New York, 1998. (5)U.S. Census Bureau, "Population Projections of the United States by Age, Sex, Race and Hispanic Origin: 1995 to 2050," U.S. Government Printing Office, Washington, D.C., 1996.

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Write letters to elected officials. Urge them to work with citizens to address major development and natural resource use issues and to describe alternatives in terms of their social, economic and environmental costs and benefits — with attention to topics such as energy, food, land use, transportation, sprawl, biodiversity and social equity.

Meet with school board representatives to discuss the importance of population education in local schools.

Reduce your personal natural resource use.

Actively help your community recover, recycle and reuse resources.

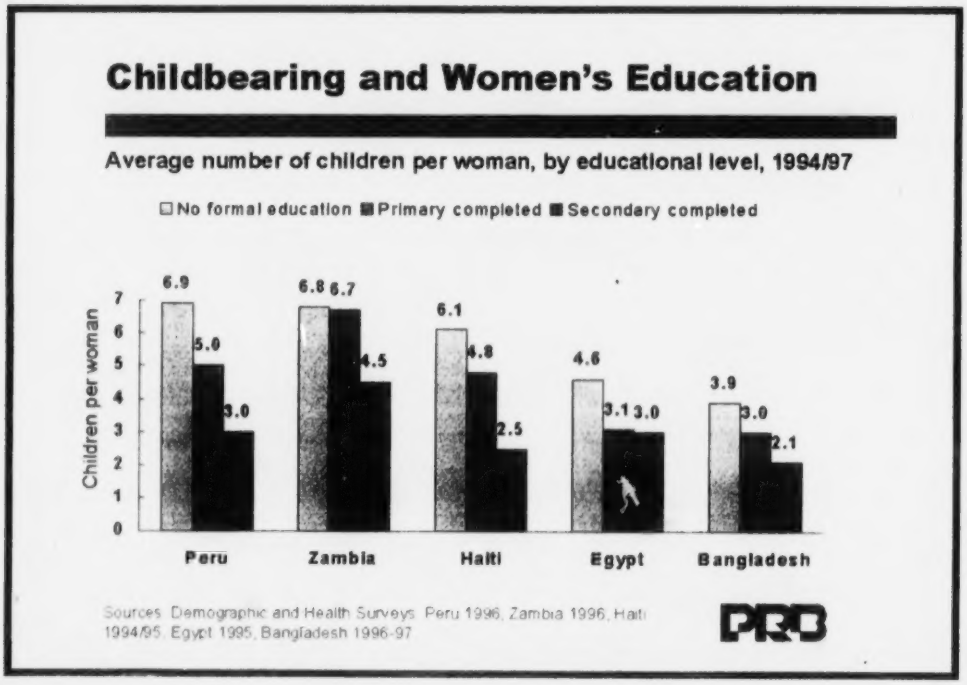
Adapted in part from "Global Population: The Facts of Life," Communications Consortium, Washington, D.C., December 1998.

Information Sheet:

The Myth of Shrinking Population

Women worldwide are having half the number of children that their mothers did in the 1950s. Lifetimes are lengthening and child survival rates are improving in most of the world. Opportunities and education for women and men also are generally on the rise. In 61 nations, the number of births per woman has fallen below the "replacement level" of 2.1 children per woman.(1)

Reasons for falling fertility are many. Girls and women who receive more education and have opportunities to work for pay typically delay childbearing. As health care advances and infant survival rises, the number of pregnancies declines and maternal health improves. In addition, reliable inexpensive family planning services are broadly available, and urbanization reduces the need for large farming families.



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In short, the planet seems to have averted — at least for now — the threat of a "population bomb." But environmental security and sustainability require continued effort. Though the worldwide trend is toward lower fertility, world population continues to rise by 78 million people per year. We have come perhaps half the distance to population stability. The danger now is that we will declare victory and go home.

Some vocal contrarians are recommending just that. They argue that current trends could lead to depopulated nations of a few lonely young people struggling to support vast numbers of dependent senior citizens. They oppose further work to curb population growth.

This is shortsighted thinking. The need instead is for renewed commitment to the steps outlined at the 1994 International Conference on Population and Development (ICPD).

Population Momentum

Momentum is the tendency of a moving object to keep moving in the same direction. The object in motion will remain in motion until acted on by a force.

Human numbers still are increasing. Of the world's 6 billion people, more than 1 billion are teenagers. It's the largest generation of young people ever.(2) Now just entering their reproductive years, their sheer numbers guarantee an enormous "momentum" of population growth through 2050. The force urgently needed to abate this trend is expanded reproductive health information and services.

More than 95 percent of those teens live in less-developed nations(2) where many governments already are struggling to meet current needs for social and infrastructure services, education, jobs, family planning information, and reproductive and other health care.

Proponents of the idea of shrinking population point to the 61 nations where women already have fewer than 2.1 children each. Yet a country's population growth rate also is influenced by the percentage of women in their childbearing years, migration and longevity. Among those 61 nations, for example, only half will experience population declines by 2050. Population will rise in the other half — including in the United States — because of their young population structures and migration patterns.(1)

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"Caring" Capacity

Just to stay even with current living conditions, the world must somehow provide for 78 million more people every year — another Great Britain plus New York City — for another generation. And yet:

More than 840 million people, one in seven, do not have enough to eat.(3) Mostly, they are too poor to pay for food, even with historically low prices. In 75 nations, per capita food production has declined during the last 15 years.(3)

Health care advances have not reached millions of people where resurgent disease is challenging impoverished medical systems, especially in the developing world.

Developing nations pay up to 80 percent of the costs of family planning services, relying on the industrialized nations for help with the rest. But that help has not always been forthcoming. U.S aid has been cut severely in recent years.

Sources: (1)United Nations Population Division, "1998 Revision, World Population Projections," United Nations, New York, Nov. 28, 1998. (2)UNFPA, "The State of World Population 1998," United Nations, New York, 1998. (3)United Nations Development Programme, "Human Development Report," United Nations, New York, 1998.

Any projection of depopulation in a given country ignores the likely migration from crowded places. The world may change its appearance, but it is in no danger of being depopulated.

The keys to further progress are obvious. Educational, economic and leadership opportunities for women must continue to be expanded. Universal maternal and child health care must remain high priorities. Young people need to participate fully in all spheres of community life and be prepared to make responsible reproductive decisions. Safe, reliable and inexpensive family planning services must be available to those who request them. The same services available to affluent countries and neighborhoods need to be available to poorer ones as well.

Take Action

The Izaak Walton League of America's Conservation Policies recommend the following actions to address issues of global sustainability and population growth: Write to your elected officials and urge them to support funding for family planning and promoting equality between men and women. This may include, but not be limited to, fulfilling sustainable development and family planning funding commitments to other nations.

Take time to better inform yourself about current population and demographic trends. Education for sustainability is a lifelong process. Opportunities for learning exist both within formal and nonformal educational settings.

Become a youth mentor. Work with young people and youth groups to plan and implement community service and conservation projects. Share your enthusiasm for outdoor recreation with disadvantaged or at-risk teens. Young people who are engaged in community activities are invested in a community's future.

Adapted with permission from "Global Population: The Facts of Life," Communications Consortium, Washington, D.C., December 1998.

Information Sheet:

People and the Environment

The link between the number of people and the environment seems obvious at first glance. Each person consumes natural resources and produces wastes. More people consume more resources, damage more of the Earth and generate more waste.

Humans are a force of nature, but unlike other forces people can choose to minimize the damage their consumption patterns inflict on natural ecosystems. As nations develop, they increase consumption. This simple reasoning is true as far as it goes, but the larger picture is more complex.

Consumption Beyond Basic Needs

A very small proportion of the population consumes the majority of the world's resources. The richest fifth consumes 86 percent of all goods and services and produces 83 percent of all carbon dioxide emissions, while the poorest fifth consumes 1.3 percent of goods and services and accounts for 3 percent of CO_2 output.(1)

Per capita municipal waste grew 30 percent in developed nations since 1975 and is now two to five times the level in developing nations. (1)

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Between 1970 and 1990, Chicago's population grew by 4 percent but home development coverage expanded by 46 percent and commercial areas grew by 75 percent. During the same period, Cleveland's population declined by 11 percent while the city's developed areas grew to cover 33 percent more ground. Los Angeles' developed areas grew by 200 percent, far outpacing its 45 percent population rise. (7)

Balance Required

The need is to balance the requirements of a growing population with the necessity of conserving Earth's natural assets.

Every 20 minutes, the world adds another 3,500 human lives but loses one or more entire species of animal or plant life — at least 27,000 species per year. Such a rate and scale of extinction has not occurred in 65 million years. (3)

Two thirds of the world's population — some 4 billion people — live within 100 miles of an ocean, inland sea or freshwater lake: 14 of the world's largest megacities (10 million or more people) are coastal. Their influences include growing loads of sewage and other waste, the drainage of wetlands and development of beaches, and destruction of prime fish nurseries. (4)

Technology and Free Markets

Technological advances can and have mitigated some of the environmental harm associated with population growth, and market mechanisms raise prices for some diminishing resources, triggering substitution, conservation, recycling and technical innovation so as to prevent depletion.

But market systems often subsidize industries such as logging, mining and grazing without tallying environmental costs. No market considers commonly held resources such as groundwater levels or atmospheric and ocean quality. Nor do markets consider Earth's "services," such as climate regulation, pollutant detoxification or plant pollination, much less questions of human equity and social justice. When water quality is degraded, well-off people can buy bottled water, for example, but poorer people cannot.

A world conclave of 58 national Academies of Science agreed in 1993 that unchecked consumption and rapid population growth are likely to overwhelm technological improvements in affecting the environment. (5)

An innovative water treatment technology — Biological Nutrient Removal — has reduced excess nitrogen and phosphorus from waste water entering the Chesapeake Bay and has improved the Bay's water quality. For recent gains in water quality improvement to keep pace with regional population growth and development, higher percentages of nutrients must be removed from wastewater. Such measures are possible using this technology, but they will require additional funding and decision-maker support.(8)

Sustainability and Demand

Clearly the greatest threat comes from both the wealthiest billion people who consume the most and generate the most waste, and from the poorest billion who may damage their meager resource base in the daily struggle to avoid starvation. Add to this the billions who are doing their best to increase their standard of living, in part through increased consumption.

Sources: (1)United Nations Development Program, "Human Development Report 1998," Oxford University Press, New York, 1998. (2)Jane Lubchenco (Past President of the American Association for Advancement of Science), "Women, Population, and Science in the New Millennium," speech given at the December 1, 1998 meeting of the AAAS in Washington, D.C. (3)Ken Strom, "Population and Habitat in the New Millennium," National Audubon Society, Boulder, Col., 1998. (4)Population Action International, "Why Population Matters," Population Action International, Washington, D.C., 1996. (5)Report, "Population Summit of the World's Scientific Academies," National Academy Press, Washington, D.C., 1993. (6)Paul Simon, "Tapped Out," Welcome Rain Publishers, New York, 1998. (7)Sierra Club, "Sprawl Fact Sheet," http://sierraclub.org, 1999. (8)Cliff Randall, Smithsonian Environmental Research Center, pers. comm., 1999.

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Although the world's water supply is constant, per-capita water consumption is rising twice as fast as world population. Humanity now uses more than half of the available surface fresh water on Earth(2): at least 300 million people live in regions that already have severe water shortages. By 2025, the number could be 3 billion. (6)

The world's forests have shrunk from 11.4 to 7.3 square kilometers per 1,000 people since 1970. The loss is concentrated in developing countries, mostly to meet the demand for wood and paper by the industrialized world.(1)

The global emission of carbon dioxide, a "greenhouse gas" most researchers say causes global warming and disruption in weather patterns, has quadrupled since 1950, largely from deforestation and the burning of fossil fuels. The atmosphere now contains 30 percent more CO_2 than at the beginning of the industrial revolution.(2) Where the industrialized world produces 60 percent of it today, the developing world will be producing 60 percent of it by 2015.(1)

Take Action

The Izaak Walton League of America's Conservation Policies recommend the following actions to address issues of population and the environment:

Measure the environmental impact of your daily activities. Visit the "Shallow Footprint" on the League's Website (http://www.ilwa.org).
Examine your own purchasing practices. Purchase only items you need, and when possible patronize those businesses, producers and manufacturers who implement sustainability practices.
Write to elected officials. Encourage them to support economic reforms that reflect the true and full costs of natural resource extraction, transportation, processing, consumption and waste management. Ask them to eliminate government subsidies for activities that distort economic efficiency or damage the environment and enhance government support for economic activities that promote conservation.
Sponsor a local workshop about the stewardship of personal resources, emphasizing the importance of savings and investment in economic activities that support sustainability.

Adapted with permission from "Global Population: The Facts of Life," Communications Consortium, Washington, D.C., December 1998.

Information Sheet:

FAITH AND SUSTAINABILITY

Increasingly, U.S. religious leaders of many faiths are saying that the blights of littering, oil spills, vanishing wetlands and polluted rivers are not just civic or legal infractions but also morally wrong. This expanding consciousness that environmental caretaking has a spiritual dimension has grown out of two separate trends that have come together in recent years. First, traditional religious leaders have become more vocal about environmental issues, recasting them as questions charged with moral responsibility. Second, more and more conservationists began making a link between their concern about the environment and their personal spiritual life.(2)

In a 1991 church document, Pope John Paul II noted that "Man has a specific responsibility toward the environment in which he lives...not only for the present

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but for future generations." For Christians, he added, this duty is "an essential part of their faith."(2)

In 1997, Ecumenical Patriarch Bartholomew I, spiritual leader of the world's 250 million Orthodox Christians, bluntly called environmental destruction a "sin."(2)

Local churches and synagogues are "going green." Temple Emmanuel, in Kensington, Md., features solar panels, energy conserving windows and recycling .(2)

Religion and Population

The World Population Programme of Action deals with issues of profound moral and ethical consequences such as sexuality and reproduction, economic justice and equality. After vigorous debate, 180 countries agreed to adopt the document at the 1994 United Nations International Conference on Population and Development in Cairo, Egypt. The Programme of Action outlines a 20-year plan to promote sustainable, human-centered development and a stable population. Some 20 delegations — including the Holy See — expressed reservations about specific parts of the text.

In the end, however, religious and political leaders reached consensus on a new approach that places global population policy within the broader context of social development and focuses on improving the status of women. Even the Vatican signed the final document, albeit with reservations in some areas. More than 30 leaders of the world's major religions issued a statement supporting the conference. (3)

The United Methodist Church says population growth must be addressed in the context of development. Most mainline Protestants agree that global population policies need to be considered within the context of social justice.(1)

Most Protestant, Roman Catholic and Jewish theologians regard sexual relations as a means to express the unity of love in marriage. Although the Vatican affirms "natural family planning" and opposes artificial means of contraception, all three of these religious communities emphasize the responsible stewardship of human reproduction.(1)

In June 1999, delegations gathered in New York to mark the fifth anniversary of the Cairo conference, to review progress made on the Programme of Action and to reach consensus on practical recommendations to make the conference's 20-year goals a reality. Except for reservations expressed by the Holy See and two country delegations, broad consensus was achieved. The Programme of Action continues to have the support of religious leaders from around the world.

Take Action

The Izaak Walton League of America's Conservation Policies recommend the following actions to address issues of population within communities of faith:

Invite population experts from local universities, government agencies, or non-governmental organizations to speak to your faith community about local, national and international population and development issues.
Write to elected public officials. Encourage them to support international funding commitments the United States has made to other countries and funding agencies.
Establish partnerships between your faith community and organizations working on population and conservation issues.
Conduct the "Sustainability Quiz" activity, included in this action kit, with members of your faith community.

Adapted, in part, from "Global Population: The Facts of Life," Communications Consortium, Washington, D.C., December 1998.

Sources: (1)Anathea Brooks and Theresa Chandler, "American Religious Groups and Population Policy," in "Beyond the Numbers," Island Press, Washington, D.C., 1994. (2)Caryle Murphy, "God's Country," Outdoor America, Izaak Walton League of America, Gaithersburg, Md., Winter 1999. (3)The Park Ridge Center for the Study of Health, Faith, and Ethics: "World Religions and the 1994 United Nations International Conference on Population and Development: A Report on International and Interfaith Consultations," Chicago, Ill., 1998.

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Take Action:

SUSTAINABILITY QUIZ

Conservationists need to be well informed about the forces that shape our future. Demographic, economic, political, social and environmental forces become even more complex when they are considered in their local, national and international contexts.

These factors and more work in complex combinations, creating problems that defy simplistic solutions. Addressing one factor while ignoring the others may prove not only ineffective, but may trigger unanticipated outcomes that may compound the original problem.

Population is an excellent example of a factor that can greatly influence efforts to ameliorate environmental problems, build sound economies and address social unrest. Yet few conservationists would list population among the issues they've actively addressed as part of their overall agenda.

This activity is designed to highlight a few statistics about key energy, air quality, food, land use and demographic issues as they relate to human population. The quiz is designed to stimulate discussion about information local conservationists would like to know to better address local and national conservation issues. Unanswered questions generated by the discussion may initiate additional community- or chapter-based discussions about community sustainability.

This activity should take about 20 minutes. Additional time will be required for follow-up discussions.

Workshop Leader Directions

1. Make sure everyone in the group has paper and pencil. Paper with one unused side may be recovered from recycling bins.

2. Read each of the questions out loud and ask participants to record their response on the paper.

3. Explain that the point of the pop quiz is not to test individual knowledge, but to stimulate additional questions participants may have about these issues — questions that may pertain to local, state, national or international conservation issues.

4. Once everyone has finished, reread each question out loud. You may ask for a show of hands to indicate how participants responded to each question. Read the correct response and the accompanying explanation.

5. Ask participants to write two questions they have about population, per capita natural resource use or availability, or other related topics.

6. Ask participants to share their questions with the group. Identify questions of common concern or priority questions to research. Ask for volunteers to seek information about and report back on the questions.

7. Ask interested participants to write their names and mailing addresses on a

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sign-up sheet to receive additional information about the Sustainability Education Project. After conducting the activity, complete the activity evaluation form. Return the sign-up sheet and activity evaluation form to the Sustainability Education Project, Izaak Walton League of America, 707 Conservation Lane, Gaithersburg, Md. 20878-2983.

QUESTIONS

1. What is the current population of the United States?

a. 150 million
b. 250 million
c. 274 million
d. 332 million

Answer: c. 274 million. In 1950, the U.S. population stood at about 150 million people; the population had doubled since 1900. By 1990, the U.S. population had grown to 250 million people. The current (1998) population of the United States is 274 million. Through natural increases (excess of births over deaths) and migration, the U.S. population currently grows by about almost 2.5 million people per year. By 2025, the United Nations estimates that the U.S. population will reach 332 million — more than twice the number of people as in 1950.
Questions to consider: What are the current populations of your community, county and state? How are they projected to change during the next 25 years?

2. If women around the world are having fewer children, why is population still growing?

a. Population is not growing.
b. People are living longer and there are fewer infant deaths.
c. There is an unprecedented number of people in and about to enter their childbearing years.
d. both b and c

Answer: d. both b and c. Improved life expectancy and reduced child mortality have fueled past population growth, and the large population of people in or about to enter their childbearing years will be a source of population momentum for more than 50 years to come. Although each woman is having fewer children, there are more women bearing children than ever before. Reports of stable or shrinking world population are inaccurate.
Questions to consider: What factors are affecting population size and distribution in your community? Do your local schools' curricula include the study of demographics, economics, environmental science, and reproductive health? Do community health services offer family planning and maternal and infant health care for everyone?

3. How many resources does it take to produce a quarter-pound of hamburger?

a. 100 gallons of water
b. 1.2 pounds of feed grain
c. the energy equivalent of 1 cup of gasoline
d. all of the above and more

Answer: d. all of the above and more. These resources are just the tip of the iceberg. It is estimated that 1.25 pounds of topsoil are lost, and greenhouse gas emissions equivalent to a 6-mile car drive are produced. These energy estimates don't include processing, transportation, cooking, or dealing with waste products produced. When you consider that the average American consumes 260 pounds of meat each year, the resource requirements to meet this need are enormous.
Questions to consider: What foods or food products are produced in your region? Are they sold directly to local consumers? What percentage of your diet consists of locally produced foods (that require less energy to process and transport)? How will changes in land use and development affect farm land in your community or region?

4. What percentage of the world's carbon dioxide is produced by the United States?

a. 4.6 percent
b. 15 percent
c. 24 percent
d. 50 percent

Answer: c. 24 percent. Although the United States population is only 4.6 percent of the world population, it produces 24 percent of the world carbon dioxide output, largely through the burning of fossil fuels. As less developed countries increase their energy use to emulate lifestyles similar to those in more developed countries like the United States, their carbon dioxide production levels will rise dramatically unless renewable energy technologies are more rapidly employed. Similarly, rising energy demand in more developed countries will require the rapid development and application of additional renewable energy technologies to prevent increased carbon dioxide emissions.
Questions to consider: What are your community's energy use patterns? What percentage of your community's energy is derived from renewable sources — wind, hydroelectric or solar power? How will your communities energy requirements change during the next 25 years? How will future energy requirements be addressed?

5. What is the significance of October 12?

a. Columbus arrives in the Bahamas
b. The Day of Six Billion
c. Boston Children's Hospital introduces the iron lung
d. all of the above

Answer: d. all of the above. But none of these events may have more significant implications for future conservation efforts than the Day of Six Billion, Oct. 12, 1999 — the day world population will reach an unprecedented 6 billion people. The United Nations provides high-, medium- and low- fertility population projections based on complex demographic analysis of available data. The medium-fertility projection, which usually is considered as "most likely," indicates that world population will reach 8.9 billion in 2050. Efforts to promote sustainability will be challenged further by this additional population growth. Although most population growth will happen outside the United States, the per capita availability and global distribution of natural resources will affect people and communities around the world dramatically.
Questions to consider: What percentage of your community's natural resource needs are locally supplied? What measures are your elected officials taking to address the long-term natural resource needs of your community? What strategies has your community adopted to ensure that habitats and biodiversity are conserved as human natural resource demands increase.

Sustainability Quiz Evaluation

Name
Address
Phone Number ( )
How many people participated in the activity?
Which questions or parts of the activity stimulated the best discussions?

How could the activity be improved?

Detach the evaluation form and return it to the Izaak Walton League of America, 707 Conservation Lane, Gaithersburg, Md. 20878-2983. Be sure to include the list of names and addresses of participants who would like additional information about the Sustainability Education Project.

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Take Action:

OPINION EDITORIAL

This sample opinion editorial should be retyped. The sample has been written so that it can be submitted to local newspapers and community newsletter editors as a short or slightly longer piece. Concise, additional local information may be added. Sign the letter with your name and the name of your chapter or community group. Send copies of printed opinion editorials to the Sustainability Education Project at the League's national office in Gaithersburg, Md.

Sustainability: At Home and Beyond

On Oct. 12, 1999, the human population will reach an unprecedented 6 billion people. Forecast earlier as an impending "population explosion," this rapid population growth pattern largely has been unnoticed by most Americans.

With women in many countries bearing fewer children on average than in the preceding decades, some political leaders even have erroneously declared population growth a non-issue. But even with our seemingly modest global increase of 1.33 percent per year, we will have to find ways to meet the needs of 3 billion more people by 2050. That is more people than lived on the planet in 1950, and they all have a right to food, shelter, health care, education and meaningful employment. Projections and challenges like these require proactive policies — policies that offer our children and grandchildren a hopeful vision of the future.

The Izaak Walton League of America's conservation policies advocate a balance between human population numbers and natural resource utilization and availability. Our policies stress responsible stewardship — promoting population stabilization and sustainable natural resource use — as a fundamental requirement for achieving conservation goals.s.

For more than 75 years, the League has fought to preserve farmland, protect water resources, and advance renewable energy technologies. Today the _____ Chapter in _____(city), _____(state) invites you to join them to promote sustainability.
(omit the next four paragraphs for a more concise opinion editorial)

In 1994, the League was one of hundreds of nongovernmental organizations that participated with 179 nations and leaders from all the world's major religions in the United Nations International Conference on Population and Development. The conference's Programme of Action was based on research that shows that population growth is slowed and environmental conditions are improved by foreign aid funding that supports sustainable development, family planning services, maternal and child health care, and education for women and girls.

These strategies already have yielded positive results, but they have been hampered by unfulfilled funding commitments. If donor countries — like the United States — fail to provide their promised financial support, the United Nations makes the following projections for the year 2000:
The reproductive health needs of 120 million people will be unmet.
Unintended pregnancies will increase by 230 million.
Abortions will increase by 92 million.

An additional 8.9 million infants and children will die from inadequate health care.
Is this any way to begin the next millennium?

The job of justly meeting peoples' health, housing, nutrition, education, and employment needs begins in our home communities, but it doesn't end there.

Our own welfare as American's cannot be separated from the welfare of the poorest individuals in the least developed countries. Stewardship, as advocated by the League, requires a broader, long-term perspective that begins by addressing population stabilization and sustainable natural resource use and looks beyond to environmental restoration and regeneration. The League welcomes your participation as it continues its efforts to protect and conserve America's soil, air, woods, water, wildlife and communities.

For more information about the Izaak Walton League of America and its Sustainability Education Project, contact (local information).

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Resources

Books

Brown, Lester R., Gardner, Gary and Halweil, Brian, "Beyond Malthus: Nineteen Dimensions of the Population Challenge," W.W. Norton & Company, New York, 1999.

Booklets

Hempel, Lamont C., "Sustainable Communities: From Vision to Action," Claremont Graduate University, Claremont, Calif., 1998.

Population Reference Bureau, "Day of Six Billion: Oct 12, 1999," Population Reference Bureau, Washington, D.C., 1999.

United States Agency for International Development, "From Commitment to Action: Meeting the Challenge of ICPD," Center for Population, Health and Nutrition, U.S. Agency for International Development, Washington, D.C., 1999.

Selected World Wide Web Sites

Centre for Development and Population Activities — a nonprofit development organization chairing the Cairo Plus Five Task Force on population and development case studies.
http://www.cedpa.org

National Audubon Society — a nonprofit environmental organization with a national Population and Habitat Campaign.
http://www.boulder.earthnet.net/~popnet/

Population Institute — a nonprofit organization promoting education about population issues.
http://www.populationinstitute.org

U.S. Information Agency — a government agency whose electronic journal currently offers "Population at the New Millennium: the U.S. Perspective."
http://www.usia.gov/journals/journals.htm

U.S. Census Bureau — statistics, facts and information from the national census in easy to access formats.
http://www.census.gov

Izaak Walton League of America — Sustainability Education Program.
http://www.iwla.org

The Izaak Walton League of America is a national conservation organization founded in 1922. Its members conserve, maintain, protect, and restore the soil, forests, water, and other natural resources of the United States. League members also promote means and opportunities for public education about these resources, their enjoyment, and utilization.

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